

LUR'YE, Lev Afanas'yevich, kand. tekhn. nauk. Prinimal uchastiye v ~~OROD-~~
VOY, A.I.; ZVENIGORODSKIY, G.Z., nauchn. red.; BASHKOVICH, A.L.,
red.izd-va; SUSHKEVICH, V.I., tekhn. red.; TOKER, A.M., tekhn. red.

[Coals and the technology of their briquetting] Iskopaemye ugli i
tekhnologiya ikh briketirovaniia. Moskva, Vses. uchebno-pedagog.
izd-vl Proftekhizdat, 1961. 286 p. (MIRA 14:11)
(Briquets (Fuel)) (Coal)

GORODOYSKIY, A.P.

New circuits for d.c. potentiometers. Inform. -tekh. sbor. MRP
no.8:35-39 '58. (MIRA 12:1)

1. Krasnodarskiy zavod elektreizmeritel'nykh priborov.
(Potentiometer)

NESTERENKO, A.D., otv.red.; LEVIN, M.I., doktor tekhn.nauk, red.; ORNATSKIY,
P.P., kand.tekhn.nauk, red.; PETROCHENKO, V.F., kand.tekhn.nauk, red.;
GORODOVSKIY, A.F., inzh., red.; ZASLAVSKIY, S.Sh., inzh., red.;
SELIBER, B.A., inzh., red.; KAZANTSEV, B.A., red.izd-va; YEFIMOVA,
M.I., tekhn.red.

[Problems in the manufacture of general electrical instruments]
Voprosy obshchego elektropriborostroeniia. Kiev, 1960. 262 p.
(MIRA 13:6)

1. Akademiya nauk USSR, Kiyev. Institut elektrotekhniki.
2. Chlen-korrespondent AN USSR (for Nesterenko).
(Electric instruments)

ILYUNIN, K.K.; GORODOVSKIY, A.F.

Manufacture of electric instruments in Holland. Izv. tekhn. no. 11:55-
56 N '60. (MIRA 13:11)

(Netherlands--Electric instruments)

GORODOVSKIY, A.F.; KOTEL'NIKOV, V.P.

The P 316 d.c. bridge. Izv.tekh. no.5:28-31 My '61. (MIRA 14:5)
(Bridge circuits)

STROMBERG, A.G.; GORODOVYKH, V. Ye.

Polarographic determination of 10^{-7} m. of lead. Zav.lab. 26
no.1:46-48 '60. (MIRA 13:5)

1. Tomskiy politekhnicheskiy institut.
(Lead--Analysis)
(Polarography)

STROMBERG, A.G.; ZAKHAROV, M.S.; GORODOVYKH, V. Ye.; ZAICHKO, L.F.

Determination of the ultramicroimpurities of zinc, lead, and copper in high purity tin by amalgam polarography. Zav.lab. 27 no.5:517-521 '61. (MIRA 14:5)

1. Tomskiy politekhnicheskii institut.
(Zinc--Analysis) (Lead--Analysis) (Copper--Analysis)

STROMBERG, A.G.; GORODOVYKH, V.Ye.

Intermetallic compound of zinc with copper. Zhur. neorg. khim.
8 no.10:2355-2359 0 '63. (MIRA 16:10)

1. Tomskiy politekhnicheskii institut.
(Intermetallic compounds) (Zinc) (Copper)

STROMBERG, A.G.; GORODOVYKH, V.Ye.; ZAKHAROV, M.S.

Method of amalgam polarography with storage. Part 1: Development of the theory. Trudy Kom. anal. khim. 15:141-149 '65.

Method of amalgam polarography with storage. Part 2: Quantitative theory, polarographic characteristics of the anodic current, apparatus and practical application of the method. Ibid. 15:150-163 (MIRA 18:7)

L 52281-65 EWP(m)/T/EWP(t)/EWP(b) JD

ACCESSION NR: AT5012676

UR/2513/65/015/000/0150/0163

AUTHOR: Stromberg, A.G.; Zakharov, M.S.; Gorodovikh, V.Ye.

TITLE: The method of amalgam polarography with accumulation. Part 2. Quantitative theory, polarographic characteristics of anodic current, apparatus, and practical application of the method

SOURCE: AN SSSR. Komissiya po analiticheskoy khimii. Trudy, v. 15, 1965. Metody kontsentrirvaniya veshchestv v analiticheskoy khimii (Methods of concentrating substances in analytical chemistry), 150-163

TOPIC TAGS: amalgam polarography, accumulation polarography, semiconductor analysis, dropping mercury electrode, anode peak potential

ABSTRACT: The authors developed a method of calculation for amalgam polarography with accumulation (APA) involving the use of a stationary dropping mercury electrode. They calculated the anodic peak constant for elements in various electrolytes. Experimental data showed that this constant is inversely proportional to the width of the half-peak. The potentials of the anodic peaks were determined in various electrolytes for Cu(II), Pb, In, Zn, Tl(I), Sb(III), Ge, Ca, Sn(IV), Bi, and Cd. The use of differential

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ACCESSION NR: AT5012676

amalgam polarography for the purpose of increasing the accuracy and reliability of the APA method is described together with the apparatus employed. A theoretical study established that the APA method can be used for determining concentrations as low as 10^{-11} M. A brief review of the reported amalgam polarographic techniques used in the determination of ultramicroconcentrations of elements in semiconducting materials is given. Orig. art. has: 5 figures, 1 table, and 15 formulas.

ASSOCIATION: Komissiya po analiticheskoy khimii, AN SSSR (Commission on Analytical Chemistry, AN SSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: IC , 00

NO REF SOV: 026

OTHER: 000

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Card 2/2

GORODSKAYA, G.I., MYAGKAYA, G.L.

Preliminary results of a study of bacterial proteoplasts [with
summary in English]. Biul. eksp. biol. i med. 46 no.8:93-97
Ag '58 (MIRA 11:10)

1. Iz otdela razvitiya zhivogo veshchestva (zav. - deystvitel'nyy
Chlen AMN SSSR O.B. Lepeshinskaya) Instituta eksperimental'noy
biologii (dir. - prof. I.N. Mayakiy) AMN SSSR, Moskva. Pred-
stavlena deystvitel'nyy chlenom AMN SSSR N.N. Zhukovym-Verezchnikovym.
(SALMONELLA,

protoplast form. in Salmonella gallinarum (Rus))

BOKIY, G.B.; GOROGOTSKAYA, L.I.

Crystalline structure of chukhrovite. Dokl. AN SSSR 163 no.1:183-185
Jl '65. (MIRA 18:7)

1. Institut radiotekhniki i elektroniki AN SSSR. 2. Chlen-korrespondent
AN SSSR (for Bokiya).

GORODSKAYA, O. S.

RYZHKOV, V. V., SMIRNOVA, V. A., and GORODSKAYA, O. S. "On the Mechanism of the Inhibition of the Autoreproduction of Tobacco Mosaic Virus by Thiamine," Biokhimiia, vol.11, 1946, pp. 197-202, 385 B523.

SO: SIRA - SI. 90-53. 15 Dec. 1953

GORODSKAYA, O. S.

RYZHKOV, V. L., and GORODSKAYA, O. S., "The Biochemistry of 'Yellows' Type of Virus Disease of Plants," in Reports of the Scientific Research Work for 1945, Department of Biological Science, Publishing House of the Academy of Science USSR, Moscow, 1947, pp. 151-152. 511 Ak144

SO: SIRA SI-90-53, 15 Dec. 1953.

RYZHKOV, V.I.; SMIRNOVA, V.A.; GORODSKAYA, O.S.

Effect of certain dyes on nucleoproteid of the tobacco mosaic virus.
Biokhimiia, Moskva 15 no.3:222-229 May-June 1950. (CLML 20:7)

1. Laboratory of Viral Diseases of Plants, Institute of Microbiology
of the Academy of Sciences USSR, Moscow.

CA

11D

New method of purifying tobacco mosaic virus. O. S. Gorodiskaya (Microbiol. Inst., Acad. Sci., Moscow). *Biokhimiya* 13, 507-8(1950).—The leaves are extd. with phosphate buffer pH 7.2. The dark-brown filtered soln. is treated with a 0.5% soln. of the acridine compd. rivanol, until no more ppt. is formed. The ppt. is dialyzed against tap water for 10-12 days, after which the soln. is filtered. The virus protein is salted out from the opalescent filtrate with $(\text{NH}_4)_2\text{SO}_4$ (about 20%), acidifying to pH 5.5. The cryst. tobacco mosaic virus is completely free of pigment. The yield and activity of the virus are the same as those obtained by another method (C.A. 42, 8271a). H. P.

1957

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RYJKOV (V. L.) & GOMODSKAYA (Mme O. S.). O formakh fosfora v listyakh zdravogo, mosaičnogo i gromadnogo Tabaka. [On the forms of phosphorus in healthy, mosaic-infected and starving Tobacco leaves.]-*C. R. Acad. Sci. U.R.S.S., N.S.*, 70, 1, pp. 106-108, 1960.

In experiments carried out at the U.S.S.R. Institute of Sciences, Moscow, the phosphorus content of Samsun tobacco leaves [*R.A.M.*, 23, p. 82] was determined colorimetrically by means of a photometer. There was a sharp increase of mineral phosphorus in starved leaves (kept in a desiccator) at the expense of both the acid-soluble organic phosphorus and the nucleoprotein fraction, including ribose nucleic acid. Mosaic infection of growing leaves and the accumulation of the virus nucleoprotein did not bring about an increase of phosphorus. Alkaline extracts from infected plants, in spite of the accumulation of the virus nucleoprotein and increased nitrogen, had less phosphorus than extracts from healthy plants.

L 17144-65 EWT(m)/EPF(c)/EWP(v)/EPR/EWP(j)/T Pc-4/Pr-4/Ps-4 WH/RM
ACCESSION NR: AR4049276 S/0081/64/000/015/S040/S040

SOURCE: Ref. zh. Khimiya, Abs. 15S224

AUTHOR: Gorodskovich, A.I.

TITLE: Production of ureaformaldehyde resin M-60

CITED SOURCE: Mekhan. obrabotka drevesiny*, sb. 31, 1963, 3-5

TOPIC TAGS: ureaformaldehyde resin, resin production, woodworking, resin application, resin property/ resin M-60

TRANSLATION: A process for the manufacture of ureaformaldehyde resin M-60 was perfected and the technology involved was described. The condensation process after addition of the components (urea, formalin, caustic soda, ammonium chloride) is carried out at 80C and a pH of 6.5-7.0. Moisture is then removed at 95-100C and the mixture is stirred for 1.5 hours. The temperature of the reaction mixture is then lowered to 70-75C and a sample is withdrawn from the reactor to determine viscosity, concentration and the pH of the mixture. The reactor is then cooled down to 20-25C and the resin is drained by gravity flow through a filtration unit into an agitator-equipped storage container. The resin is used for veneering furniture components, in manufacturing chipboard, for gluing plywoods and in other operations of the woodworking

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L 37144-65

ACCESSION NR: AR4049276

industry. The viscosity of the resin was 40 sec. to 4 min. 30 sec. according to VZ-4, the content of free CH_2 \leq 2%, the content of dry substance was 60 \pm 3%, the index of refraction = 1.445 = 1.455, and the setting time with 1% ammonium chloride (by dry weight) was 50-65 sec. Z. Ivanova

SUB CODE: GC, MT

ENCL: 00

Card 2/2

GORODYSKIY, A.V. [Horodys'kyi, O.V.]; PANOV, E.V.; GRISHCHENKO, V.F. [Hryshchenko, V.F.]

Method of reproducing stationary polarography in melts. Dop. AN URSSR
no.3:377-380 '63. (MIR' 17:10)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR. Predstavleno
akademikom AN UkrSSR Yu.K. Delimarskim [Delimars'kyi, IU.K.].

DELIMARSKIY, Yu.K.; SHAPOVAL, V.I.; GORODYSKIY, A.V.

Measurement of Faraday impedance of the system Ni/Ni in a
KCl-NaCl fused mixture. Ukr. khim. zhur. 30 no.7:677-682
'64 (MIRA 18:1)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

L 32069-65 EWT(m)/EWG(m)/T R&H

ACCESSION NR: AP4047997

S/0073/64/030/010/1060/1064

AUTHOR: Gorody*skiy, A. V. ; Panov, E. V.

TITLE: Oscillographic study of inter-electrode capacitance in fused salts for cells with small phase displacement

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 30, no. 10, 1964, 1060-1064

TOPIC TAGS: oscilloscope, impedance measurement, capacitance measurement, fused K_2CO_3 Li_2CO_3 mixture, fused salt cell

ABSTRACT: A method of measuring impedance by an oscilloscopic technique was worked out which is independent of the phase angle of the system. This is done by placing a capacitor (C_0) and resistor (R_0) in series with the cell. (See fig. 1 of the Enclosure). A decrease in voltage in the cell (U_x) shows up in the vertical phase of the oscilloscope and a decrease in the standard voltage (U_0) shows up in the horizontal phase. A change in R_0 leads to a corresponding change in U_x and U_0 in phase. Thus $C_x = U_0 C_0 / U_x$ and $R_x = U_x R_0 / C_0$. The instantaneous voltage

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drop in each of the two multiple resistances on the oscilloscope record can be expressed by

$$y' = a \sin(\varphi_0 + \omega t),$$

$$x' = b \sin(\varphi_0 + \omega t + \beta),$$

where a and b are the amplitude values of the voltage drop across resistance, φ_0 and $\varphi_0 + \beta$ are the corresponding phase displacements, t is time and ω is cycling frequency. It was shown that if a = b, the resulting values are phase independent. These conclusions were tested on a fused K_2CO_3 - Li_2CO_3 mixture at 550C. Capacitance of this system was measured using both smooth and porous electrodes, and results showed good agreement. Orig. art. has: 3 figures, 1 table and 13 equations.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN UkrSSR (Institute of General and Inorganic Chemistry AN UkrSSR)

SUBMITTED: 14Aug63

ENCL: 01

SUB CODE: EC, GC

NR REF SOV: 007

OTHER: 007

Card 2/3

L 32069-65

ACCESSION NR: AP4047897

ENCLOSURE: 01

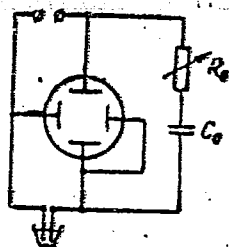


fig. 1

Apparatus for Measuring

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GORODYSKIY, A.V.; PANOV, E.V.

Use of mechanically split pulses in electrochemical investigations.
Ukr.khim.zhur. 30 no.11:1158-1161 '64. (MIRA 18:2)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

GORODSKIY, D. A. (Prof.) (Dr Tech Sci)

"Studies of the Conditions of Stability in cases of Frequency starting of asynchronous loads with large moments of inertia"

Avto i Tele IX, 6, 48

GORODSKIY, D.A.

42262 GORODSKIY, S.A. Technoye postroyeniye Krugovoy diagrammy asinkhronnogo
dvigatelya. Trudy Mosk. energet. in-ta im Molotova, VYP. 3, 1948, s. 59-69

SO: Letopis' Zhurnal' nykh Statey, Vol. 47, 1948

Gorodskiy, D. A.

(Russian) *Известия* 1951, no. 3, 65-66
 A rough approximation to a pair of complex roots of the polynomial $P(z)$ is found by using a pair of ordinary draughting triangles to construct the points $P(z)$ for several consecutive values of $|z|$ and $\arg z = 0^\circ, 30^\circ, 45^\circ, \dots, 180^\circ$ (i.e. several points on curves that would be drawn by an isodromic graph are plotted by vector addition). The correct quadratic factor $z^2 + az + b$ and also the division $P(z) = (z^2 + az + b)Q(z)$ are found.

GORODSKIY, D.A., doktor tekhn. nauk, prof.

Investigation of the stability of a unit feeding an asynchronous load
with a high moment of inertia. Vest. elektroprom. 27 no.8:39-46 Apr
'56. (MLRA 10:9)

1. Nauchno-tekhnicheskiy institut Ministerstva elektrotekhnicheskoy
promyshlennosti.

(Electric machinery)

BOTVINNIK. M.M., professor, doktor tekhnicheskikh nauk; KARPOL', E.M.,
inzhener; GORODSKIY, D.A., professor, doktor tekhnicheskikh nauk;
SAZONOVA, Z.K., inzhener.

Experimental investigation of the operation of synchronous machines
having longitudinal and lateral excitation . Vest.elektroprom. 28
no.2:28-31 F '57.
(MLRA 10:3)

1. TSentral'naya nauchno-issledovatel'skaya elektrotekhnicheskaya
laboratoriya Ministerstva elektrostaniy (for Botvinnik and Karpel')
2. Nauchno-issledovatel'skiy institut Ministerstva elektromyshlen-
nosti (for Gorodskiy and Sazonova)
(Electric generators)

KOSTENKO, M.P., akademik; ZAVALISHIN, D.A., prof.; GLEBOV, I.A., dots.;
MEL'NIKOV, N.A., dots.; KAZOVSKIY, Ye.Ya., kand.tekhn.nauk;
FAZYLOV, Kh.F., doktor tekhn.nauk, prof.; GORODSKIY, D.A., doktor
tekhn.nauk, prof.; KHOLMSKIY, V.G., doktor tekhn.nauk, prof.;
CHIZHENKO, I.M., kand.tekhn.nauk; MAMIKONYANTS, L.G., kand.tekhn.nauk;
TSUKERNIK, L.V., kand.tekhn.nauk.

Regulating the reactive power with the aid of controlled valves.
Vest.elektrom. 28 no.12:65-71 D '57. (MIRA 10:12)

1. Institut elektromekhaniki AN SSSR (for Kostenko, Zavalishin, Glebov).
2. Vsesoyuznyy nauchnyy energeticheskiy institut (for Mel'nikov).
3. Zavod "Elektrosila" (for Kazovskiy).
4. Institut energetiki AN UzSSR (for Fazylov).
5. Nauchno-issledovatel'skiy institut elektrotekhnicheskoy promyshlennosti (for Gorodskiy).
6. Kiyevskiy politekhnicheskoy institut (for Kholmskiy, Chizhenko).
7. Tsentral'naya nauchno-issledovatel'skaya elektrotekhnicheskaya laboratoriya Ministerstva elektrostantsiy (for Mamikonyants).
8. AN SSSR (for Tsukernik).

(Electric generators)

Gorodskiy, D. A.

AUTHORS: Alekseyev, A. Ye., Atabekov, G. I., 105-58-6-29/33
Bron, O. B., Gorodskiy, D. A., Kostenko, M. P., Kurenev, S. I.,
Neyman, L. R., Polivanov, K. M., Reyngol'dt, Yu. A., Romanov-
skiy, V. B.

TITLE: Professor A.Ye. Kaplyanskiy (Professor A.Ye. Kaplyanskiy)

PERIODICAL: Elektrichestvo, 1958, Nr 6, pp. 92-92 (USSR)

ABSTRACT: On the occasion of his 60-th birthday. He was born on May 27, 1898. In 1925 Aleksandr Yevseyevich Kaplyanskiy, Doctor of Technical Sciences, Professor of the Leningrad Military-Air-Engineering Academy graduated from the Leningrad Institute for Electrical Engineering with a gold medal, then he worked in the factory "Krasnaya nit' " and later, until 1932, in the factory "Elektrosila". He planned and constructed the new system for the electric supply of the factory and a number of test stations, among them stations for asynchronous motors and turbogenerators up to 100 MW. In 1925 he began his pedagogical activity in the field of theoretical electrical engineering at the Leningrad Institute for Electrical Engineering. Later he also taught at the Institute for Electrical Engineering for Telecommunication En-

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Professor A.Ye. Kaplyanskiy

105-58-6-29/33

gineers, at the Institute for Railroad Engineers, at the Military-Air-Engineering-Academy, at the Institute for Water Transport Engineers. In these institutes he organized and directed the chairs for the theoretical principles of electrical engineering. - He wrote about 60 printed works. A number of his works are devoted to the theory of inverse and nonlinear circuits and to electromechanical analogies. In 1938 he took doctor's degree. He made many inventions in various fields of electrical engineering. He worked out universal alternating current apparatus which are used everywhere at present. In 1957 he edited a textbook "A Method of Teaching the Theoretical Principles of Electrical Engineering". In January 1958 the All Union Scientific Conference of Methods on the Theoretical Principles of Electrical Engineering was organized and carried out at his suggestion. There is 1 figure.

1. Electrical engineering--USSR
2. Scientific personnel--USSR

Card 2/2

AUTHORS: 1)Gorodskiy, D. A., Professor, Doctor SOV/105-58-9-19/34
of Technical Sciences, Volchkov, I. Ye., Engineer
2)Ivanov-Smolenskiy, A. V., Docent, Candidate of Technical
Sciences
3)Veretennikov, L. P., Docent, Candidate of Technical
Sciences, Barinov, N. G., Docent, Candidate of Technical
Sciences, Babushkin, M. N., Candidate of Technical Sciences
Potapkin, A. I., Engineer
(Leningrad)

TITLE: Dynamic Models of Power Systems (o dinamicheskikh modelyakh
energосистем)

PERIODICAL: Elektrichestvo, 1958, Nr 9, pp 80 - 82 (USSR)

ABSTRACT: Remarks concerning the paper by I.S.Bruk in Elektrichestvo,
1958, Nr 2. 1) According to the paper, the methods of
using mathematical and physical models are contrary to
each other. It is shown here that this is not correct
and that a reasonable coordination of the two methods
should rather be aimed at. 2) The author follows the
opinion of M.P.Kostenko, V.A.Venikov and N.N.Shchedrin,
and points out that for investigating transients in

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Dynamic Models of Power Systems

SOV/105-58-9-19/34

electric power systems one should combine the results gained with dynamic models with those obtained by the use of electronic digital computers. 3) The authors ask for a combined use of dynamic models and computers. They show that even in such fields where digital computers prevail, one cannot do without dynamic models. There are 3 Soviet references.

ASSOCIATION: 1) Nauchno-issledovatel'skiy institut elektrotekhnicheskoy promyshlennosti (Scientific Research Institute of Electrical Industry) 2) Moskovskiy energeticheskiy institut (Moscow Institute for Power Engineering)

Card 2/2

Gorodskiy, D.A.

110-1-3/19

AUTHOR: Gorodskiy, D.A., Doctor of Technical Sciences, Professor

TITLE: Characteristics of Double-fed Asynchronous Generators
Operating in Parallel with a System (Kharakteristiki
asinkhronnykh generatorov dvoynogo pitaniya, rabotayushchikh
s set'yu)

PERIODICAL: Vestnik Elektropromyshlennosti, 1958, Vol.29, No.1,
pp. 8 - 14 (USSR).

ABSTRACT: In 1935, Prof. A.A. Gorev proposed an a.c. generator with two perpendicular field windings on the rotor fed by voltages proportional to the sine and cosine of the angle between the axis of one of the windings and the voltage vector of the stator circuit. When such a rotor runs at asynchronous speed, the machine is fed by two voltages of slip frequency in quadrature. The rotor currents set up a magnetic field that rotates at slip frequency relative to the rotor and, therefore, at synchronous speed relative to the stator. The rotor of such a machine can run at any speed but the stator e.m.f. will always be that of the system to which it is connected. A machine with a three-phase rotor can be built on the same principle and supplied with three-phase alternating current of slip frequency.

Card 1/3 A practical difficulty is the production of very-low-frequency

Characteristics of Double-fed Asynchronous Generators Operating
in Parallel with a System 110-1-3/19

alternating current. Moreover, the frequency must be controlled to exactly the slip value. Ways of overcoming the difficulty are discussed. The application of the theory of a doubly-fed machine to this case is considered. In the case of a machine with two perpendicular windings, it is best, when making a theoretical examination, to replace them by the equivalent three-phase circuit. Expressions are then derived for currents and powers of an asynchronous generator using the general equations of a three-phase machine with symmetrical stator and rotor windings. Expressions are obtained for the stator and rotor currents.

The voltage delivered to the rotor must be of the right frequency and phase. Fundamental considerations concerning the formation of such a voltage are explained. Expressions are then derived for the voltages applied to the rotor.

To obtain the characteristics of the double-fed machine, the expressions for stator and rotor current and power are rewritten to include the slip. The expression for the power is rather complicated but can be simplified by ignoring the ohmic resistance of the stator.

The characteristics of a machine working on busbars of infinite

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Characteristics of Double-fed Asynchronous Generators Operating
in Parallel with a System

capacity are then considered. A preliminary calculation is made of the characteristics of a system on the assumption that it is possible to construct a generator with the same characteristics as those of existing generators. Appropriate values of reactances, voltage, and so on, are selected and the corresponding characteristics are plotted in Fig.8. These show that if it could be built, a machine of this kind would deliver more than the rated power, though the theoretical value would not be achieved because of practical difficulties in arranging the rotor windings. Nevertheless, the calculations show that the potential advantages of asynchronous generators are very great. A number of design variants will have to be worked out before a final judgment about them can be made. Questions of stability are briefly considered and it is recommended that the system be studied further. A possible variant, using a commutator machine, is illustrated in Fig.9. There are 9 figures and 3 Russian references.

ASSOCIATION: NII EP

SUBMITTED: March 7, 1957

AVAILABLE: Library of Congress

Card 3/3

GORODSKIY, D.A., doktor tekhn. nauk, prof. (Moskva)

Inadequacies in presenting the theoretical principles of
electrical engineering. Elektrichestvo no.5:76-79 My '63.
(MIRA 16:7)

(Electric engineering--Study and teaching)

SYROMIATNIKOV, I.A., doktor tekhn. nauk, prof.; LITVAK, L.V., kand.
tekhn. nauk; BOTVINNIK, M.M., doktor tekhn. nauk;
GORODSKIY, D.A., doktor tekhn. nauk

Concerning [kand. tekhn. nauk] N.R. Ipatenko's article
"Automatic excitation control of a synchronized induction
motor." Elektrotehnika 34 no.11:70-72 N '63.

(MIRA 17:2)

GORODSKIY, D.A., doktor tekhn.nauk, prof.

Can a multiturn unipolar machine be built? Elektrotehnika 35
no.2:60 F '64. (MIRA 17:3)

GORODSKIY, D.A., doktor tekhn. nauk, prof. (Moskva)

Nature of the self-excitation of a synchronous machine with a capacitive load. Elektrichestvo no.1:65-66 Ja '65.

(MIRA 18:7)

GORODSKIY, D.A., doktor tekhn. nauk, prof.

The question remains open. Elektrotehnika 36 no.5:64 My '65.
(MIRA 18:5)

ANDRIANOV, V.N.; BUDZKO, I.A.; VENIKOV, V.A.; DEMIN, A.V.; GORODSKIY, D.A.;
GRUDINSKIY, P.G.; ZAKHARIN, A.G.; KRASNOV, V.S.; LEVIN, M.S.; LISTOV,
P.N.; MARKOVICH, I.M.; MEL'NIKOV, N.A.; NAZAROV, G.I.; RAZEVIK, D.V.;
SMIRNOV, B.V.; STEPANOV, V.N.; SYROMYATNIKOV, I.A.; FEDOSEYEV, A.M.;
YAKOBS, A.I.

Doctor of technical sciences, Professor Lev Efimovich Ebin, 1905-; on
his 60th birthday. Elektrichestvo, no.6:91 Je '65.

(MIRA 18:7)

80351
S/029/60/000/05/12/024
B008/B017

3.5000

AUTHOR: Gorodskiy, M., Engineer

TITLE: If the People of All Countries... The Radiant Ring of the Planet

PERIODICAL: Tekhnika molodezhi, 1960, No. 5, pp. 23-24

TEXT: This is one of the articles announced in No. 2 of this periodical under the title "If the People of all Countries..." on a project of international importance. It is the project submitted by the mathematician and engineer M. Gorodskiy (Fig. p. 24) on June 1, 1958. The project provides for a change of climatic conditions on the earth. The author who in 1929 graduated from the matematicheskoye otdeleniye Leningradskogo universiteta (Department of Mathematics of Leningrad University) and in 1939 from the gidrotekhnicheskoye fakul'tet Politekhnikheskogo instituta (Hydrotechnical Department of the Polytechnic Institute) issued numerous papers on hydrotechnology. During the last ten years, he cooperated in the construction of the Kuybyshevskaya elektrostantsiya (Kuybyshev Power Plant) and the Volgo-Baltiyskiy kanal (Volga-Baltic Canal). At present, he works

Card 1/3

80651

If the People of All Countries
The Radiant Ring of the Planet

S/029/60/000/05/12/024
B008/B017

as a mathematician at a scientific research institute. The present project is based on the utilization of solar energy. It differs from that suggested 30 years ago by G. Obert, which has been forgotten, by the fact that no mirrors but an artificial dust cloud is to be used to capture the sun rays. To capture the solar energy necessary for heating the earth, a disk-shaped dust ring consisting of metallic potassium should be produced around the earth. In this connection, two main conditions are to be observed: The movement (rotation) of the upper and the lower boundary of the ring must have the same velocity. For this reason, the artificial dust ring should run over poles for a long time. Furthermore, a collision of dust particles should be avoided by placing the ring into a circular orbit. On its movement around the earth, the ring should assume such a position as to face the sun with its broad side during solstice, and with its edge during equinoxes. The lower rim of the ring should be at an altitude of 1200 km, and the upper rim at 10,000 km. Total weight of this ring should be 1,750,000 t. Artificial satellites (snaryady-sputniki) could be used to produce this ring which are launched with the aid of centrifugal force. By means of 5 such devices, the artificial dust ring could be completed within 4 years. After completion of the ring, the

XX

Card 2/3

If the People of All Countries... .
The Radiant Ring of the Planet

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B008/B017

climatic conditions would change in such a way that summers would turn hotter, and winters warmer. There would hardly be any difference between the three seasons fall, winter, and spring. In June 1959, the editors received another project signed by Engineer Cherenkov which was similar even in its details. It differs from the present project only by the fact that for creating the ring Cherenkov suggests rockets instead of satellites, and that besides the heating of the northern hemisphere also a more intensive illumination of the earth's surface is intended. There are 2 figures. X

Card 3/3

GAPENKO G.S.: GORODSKIY, Mikhail Mikhaylovich

[New system of state agricultural produce procurements on
collective farms] O novoi sisteme zagotovok sel'skokho-
ziaistvennykh produktov v kolkhozakh. Moskva, Gos.izd-vo
polit.lit-ry, 1959. 93 p. (MIRA 15:10)
(Produce trade)

GORODSKOY, K.P.

BElyATSKAYA, R.G.; GINTSBURG, Ya.S.; DAMOVICH, D.M.; GORODSKOY, K.P., red.;
YUZHNA YA, Ye.A., red.izdatel'stva; SOSNIN, A.P., tekhn.red.

[Hot zinc plating of light sheet steel and utensils] Goriachee
otsinkovanie krovel'noi stali i posudy. Moskva, Gos.izd-vo
mestnoi promyshl. RSFSR, 1956. 179 p. (MIRA 10:12)
(Zinc plating)

ACCESSION NR: AP3001776

S/0188/63/000/003/0075/0080

AUTHOR: Gorodtsov, V. A.

TITLE: Quantum field theory model with n fixed fermions

SOURCE: Moscow. Universitet. Vestnik. Seriya 3. Fizika, astronomiya, no. 3, 1963, 75-80

TOPIC TAGS: quantum field theory, fixed fermion model, quantized boson field model, non stationary processes, n nucleon quantum field model, πN interaction

ABSTRACT: The fixed fermion model of field theory is considered in which the nucleons (fermions) exchange mesons (bosons) without experiencing recoil and appear in the theory as fixed sources of a quantized boson field. Secondary quantization of the boson field is taken into account. The model permits analysis of nonstationary processes, using the concept of boson number. An equation is derived for a system of n fixed nucleons and neutral scalar mesons (pseudoscalar mesons are also considered). The equation is solved for the n -nucleon problem, and single-nucleon renormalization conditions are shown to hold. The results do not depend on the renormalization constant. The interaction potential of n nucleons is then derived. Orig. art. has: 40 equations.

Card 1/2

ACCESSION NR: AP3001776

ASSOCIATION: Kafedra elektrodinamiki i kvantovoy teorii (Department of Electrodynamics and Quantum Theory)

SUBMITTED: 16Oct62

DATE ACQ: 09Jul63

ENCL: 00

SUB CODE: PH

NO REF SOV: 005

OTHER: 000

Card 2/2

BARENBLATT, G. I.; GORODTSOV, V. A.

"On the local structure of the developed plastic flow."

report submitted for 11th Intl Cong of Theoretical & Applied Mechanics & General Assembly, Munich, 30 Aug-5 Sep 64.

ACCESSION NR: AP4027591

S/0040/64/028/002/0326/0334

AUTHORS: Barenblatt, G. I. (Moscow); Gorodtsov, V. A. (Moscow)

TITLE: Structure of microstress field of extended plastic flow

SOURCE: Prikladnaya matematika i mekhanika, v. 28, no. 2, 1964, 326-334

TOPIC TAGS: microstress, plastic flow, solid medium, ideal plastic body, homogeneity, isotropy, polycrystal, microinhomogeneity, random stress field, stress-deformation, linear elasticity

ABSTRACT: The authors find the spectral densities of the energy of form change and volume deformation to within constant dimension factors. In extended plastic flow there is a collection of microstresses with measurements from L_1 up to a dimension of order of the average dimension of a grain d and less. The microstress field has the property of local isotropy and homogeneity. In an elastic interval of measurements and wave numbers the authors obtain an expression for the structure tensor of the microstress field and the spectral representation of the correlation tensor to within two universal constants. The results show that the idea of local isotropy and homogeneity and the cascade hypothesis, set forth by Kolmogorov in turbulence theory, are of great value for a wide class of nonlinear distributed systems with

Card 1/2

ACCESSION NR: AP4027591

dissipation. "The authors are deeply grateful to A. S. Monin for his valuable advice and R. L. Salganik for his useful discussions." Orig. art. has: 38 formulas.

ASSOCIATION: none

SUBMITTED: 20Dec63

DATE ACQ: 28Apr64

ENCL: 00

SUB CODE: AP

NO REF SOV: 005

OTHER: 002

Card 2/2

CHISTOVICH, G.N.; GORODYSKAYA, E.A.; KOHNILORA, N.M.; MOISEYEVA, N.I.;
POLOKOVA, T.V.; ~~TERENT'YEVA~~, T.A.; SHOSHINA, S.V.

Man as carrier of pathogenic staphylococci; author's abstract.
Zhur.mikrobiol.epid.i immun. no.11:55-56 M '53. (MLBA 7:1)
(Staphylococcus) (Contagion and contagious diseases)

DELMARSKIY, Yu.K.; GORODYSKIY, A.V.

Progress of polarography on solid electrodes (survey). Zav.
lab. 28 no.9:1036-1042 '62. (MIRA 16:6)

(Polarography)

L 5284-66 EWT(m)/EWP(i)/EWP(t)/EWP(b) JD

ACO NR: AF5022037

SOURCE CODE: UR/0286/65/000/014/0104/0104

AUTHORS: Delimarskiy, Yu. K.; Gorodyskiy, A. V.; Bykova, M. I.

ORG: none

TITLE: A method for electrolytic cadmium-plating. Class 48, No. 173087

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 104

TOPIC TAGS: cadmium, electrolysis, electrolyte, metal plating, cadmium chloride, sodium chloride

ABSTRACT: This Author Certificate presents a method for electrolytic cadmium-plating. To prevent hydrogenation and formation of dense sediments capable of firm adhesion to the base metal, the deposition from cadmium chloride and sodium chloride is employed at the current density on the order of 100 a/dm^2 and the temperature of $420-450^\circ\text{C}$.

SUB CODE: MM/ SUBM DATE: 24Dec62/ ORIG REF: 000/ OTH REF: 000

Card 1/1

GORODYSKIY, A. V.

"The Kinetics of Cathode Processes Occurring During Polarography on Solid Electrodes." CandChem Sci, Inst of General and Inorganic Chemistry, Acad Sci Ukrainian SSR, Kiev, 1954. (KL, No 9, Feb 55)

SO: Sum. No. 631, 26 Aug 55-Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14)

AUTHORS: Gorodyskiy, A. V. and Delimarskiy, Yu. K., Member 20-114-6-34/54
of the AN Ukrainian SSR

TITLE: The Equation of an Unsteady Diffusion Toward a Stationary
Electrode (Uravneniye nestatsionarnoy diffuzii k nepod-
vizhnomu elektrodu)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 114, Nr 6, pp. 1261-1264 (USSR)

ABSTRACT: It is considered an established fact that the diffusion
of a reacting substance in the direction to a stationary
electrode is determined by 2 conditions: 1) the concentration
of this substance c_0 until switching in the current is the
same in the entire mass of the electrolyte; 2) the ionic
concentration at the surface of the electrode at a certain
moment t after switching in the current is equal to zero
(references 1-5). In other words, the following conditions
apply to the linear diffusion: $c(x,0) = c_0(1)$ and $c(t,0) =$
 $= 0$; (2), whereas $c(r,0) = c_0(3)$ and $c(r_0,t) = 0(4)$
apply to the spherical diffusion: (x and r are coordinates,
 r_0 - the radius of a sparking ball). Based on this, general
equations (5) for both kinds of diffusion are solved
[(6),(7)]. As the conditions (1) - (4) do not take into
account the convection of the electrolyte, equations (6)

Card 1/4

The Equation of an Unsteady Diffusion Toward a Stationary
Electrode

20-114-6-34/54

and (7) are only correct for stationary (gelatinized) solutions (reference 2). Under ordinary conditions of electrolysis the amperage after closing the circuit drops to an attained value (references 2,3,6,7) and further remains constant in contrast to equations (6) and (7). From this follows that the diffusion process of the reacting substance in the course of time attains a certain stationary state to which a constant concentration-gradient of the diffusing substance at the surface of the electrode corresponds. On this occasion a constant thickness of the diffusion layers is apparently attained at the outer boundary of which a practically constant concentration c_0 is maintained (in accordance with references 8,9). From this follows an additional boundary condition of the diffusion of the reacting substance in the direction to the stationary electrode: in some distance l or $p - r_0$ from the electrode the concentration of this substance is maintained constant and equal to c_0 . Thus $c(l,t) = c_0(8)$ applies to the linear diffusion and $c(p,t) = c_0(9)$ to the spherical. According to conditions (1),(2),(8) and (3),(4),(9) the solution of equation $\frac{\partial c}{\partial t} = a \Delta c$ (5) by means of the integral

Card 3/4

The Equation of an Unsteady Diffusion Toward a Stationary Electrode

20-114-6-34/54

by Laplace for the linear diffusion yields:

$$\left(\frac{\partial c}{\partial x}\right)_{x=0} = \frac{c_0}{\ell} \left[1 + 2 \sum_{k=1}^{\infty} \exp \left(-\pi^2 k^2 \frac{at}{\ell^2} \right) \right] \quad (10)$$

and for the spherical diffusion:

$$\left(\frac{\partial c}{\partial r}\right)_{r=r_0} = -\frac{c_0}{r_0} + \frac{c_0}{r_0 - r_0} \left[1 + 2 \sum_{k=1}^{\infty} \exp \left(-\pi^2 k^2 \frac{at}{r_0^2 - r_0^2} \right) \right] \quad (11)$$

The derived rules were checked by the authors on the current-time curves in the case of mercury-separation at a stationary spherical mercury cathode as well as in the case of silver-separation at a stationary flat silver cathode, furthermore by means of the data of other authors (references 2,3,7). The electrolyte was not stirred. The curves $i = f(t)$ obtained by the authors and other researchers, where i is density of the diffusion current, were investigated in coordinates $t, \lg(i - i_{\infty})$, where i_{∞} is the density of the current that became constant, i.e. at $t = \infty$. Figure 1 gives examples of such curves. In all cases a linear dependence of t on $\lg(i - i_{\infty})$ was observed. This

Card 3/4

AUTHORS: Delimarskiy, Yu. K., Gorodyskiy, A.V. SOY76-32-6-24/46

TITLE: The Equation for the Polarographic Curves of the Electrodeposition of Metals on Solid Electrodes (Uravneniye polyarograficheskikh krivyykh elektroosazhdeniya metallov na tverdykh elektrodakh)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol. 32, Nr 6, pp. 1348-1353 (USSR)

ABSTRACT: Heyrovsky and Ilkovich (Ref 2) advocated an equation for the description of polarographic curves of dropping mercury electrodes, while Ye. M. Skobets (Ref 3) showed that it can also be used in the case of solid amalgamated electrodes. Yu. K. Delimarskiy and I.D. Panchenko (Ref 4) proved that it may also be used for solid electrodes at high temperatures. Since at usual temperatures no particular diffusion is to be assumed within the solid not amalgamated electrodes the equation by Kol'tgof and Lingeyn (Ref 5) took into account only the concentration polarization, while Le Blanc (Ref 6) found also in this case the existence of an electrochemical polarization. Proceeding from the theory of A. N. Frumkin

Card 1/3

The Equation for the Polarographic Curves of the
Electrodeposition of Metals on Solid Electrodes

SOV/76-32-6-24/46

and his school (Ref 7) an equation is elaborated which takes into account both kinds of polarization, and which is analogous to that by Frumkin concerning the polarograms of hydrogen cleavage. The correctness of the equation is proved by experiments of the electric deposition of copper, cadmium, zinc and nickel on platinum electrodes; the small deviations noticed at lower voltages are explained by the influence of the reversible ionization process. Besides, data obtained by Ye. M. Skobets and S. A. Kacherova (Ref 9), Ye. M. Skobets, P. P. Turov and V. D. Ryabokon' (Ref 10), I. D. Panchenko (Ref 11), I. L. Abarbatchuk and L. I. Koval'skiy (Ref 12) and S. K. Chirkov (Ref 13) are investigated and thus the correctness of the equation is proved. There are 10 figures and 13 references, 11 of which are Soviet.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii, Kiyev
(Kiyev, Institute of General and Inorganic Chemistry)

SUBMITTED: February 16, 1957

Card 2/3

The Equation for the Polarographic Curves of the SOV/76-32-6-24/46
Electrodeposition of Metals on Solid Electrodes

1. Metals--Electrodeposition
2. Mercury electrodes--Polarographic analysis
2. Mathematics

Card 3/3

Gorodyskiy, A.V.

SOV/21-59-9-15/25

AUTHOR: Horodys'kyi, O.V.

TITLE: Low-Frequency Polaroscopy

PERIODICAL: Dopovidi Akademiyi nauk Ukrayins'koyi RSR, Nr 9,
1959, pp 995-997 (USSR)

ABSTRACT: The article presents a method for obtaining reproducible polarograms on the oscillograph screen using solid electrodes. The method is based on a rational selection of time, that is the time of polarization, and has been tested by polarographing fused metal chlorides on a platinum electrode. During this process, the electrodes do not undergo any periodical changes. The reproduction of polarograms is accurate. The scheme is shown by drawing Nr 1, whereby A stands for motor; r_1 - potentiometer; l - platinum cathode; 2 - platinum electrode; R_n - large resistance; Π_1 - amplifier; R_e - standard resistance; 3 - comparative

Card 1/3

Low-Frequency Polaroscopy

SOV/21-59-9-15/25

platinum electrode; Π_2 - amplifier; M - relay; K_1 - contact; \mathcal{N} - time relay; B - cathode voltmeter; and $\mu\kappa a$ - microammeter. The anode polarization is eliminated by using an unpolarized comparative electrode. The scheme permits obtaining of dependencies $i \varphi$;

$$\varphi, t; i, t; \frac{d\varphi}{di} i; \frac{d\varphi}{di} \varphi.$$

whereby φ means potential of cathode 1 and i - linearly alternated current. The time of polarization is ten seconds. There are 2 drawings.

ASSOCIATION: Instytut zahal'noyi ta neorhanichnoyi khimiyi AN
URSR (Institute of General and Inorganic Chemistry
of the AS of UkrSSR)

Card 2/3

5(4)

SOV/76-33-1-22/45

AUTHORS: Delimarskiy, Yu. K., Gorodyskiy, A. V.

TITLE: On the Question of Decomposition Potentials of Electrolytes (K voprosu o napryazhenii razlozheniya elektrolitov)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 1, pp 137 - 140 (USSR)

ABSTRACT: Investigations of the question mentioned in the title were first carried out by Helmholtz (Gel'mgol'ts)(Ref 1) and commented by Le Blanc (Leblan)(Refs 2,3). Le Blanc's assumption, however, that under a decomposition potential of a given electrolyte no electrolysis can take place, contradicts modern ideas on the nature of electrode processes (e.g. excess-potential). Since the decomposition point assumed by Le Blanc is not related to any certain potential any point of the diagram current-potential may be used. Thus there is no basic difference between ordinary and residual current. The fundamental mistake in Le Blanc's ideas is the assumption that ions of a certain type are completely equal with respect to energy. The Boltzmann

Card 1/2

On the Question of Decomposition Potentials of Electro-
lytes

SOV/76-33-1-22/45

(Bol'tsman) statistics, however, can be applied to the ions (and gas molecules). The electrolyte cell Pt/KCl/Pt is considered from this point of view and the statements are confirmed in contradiction to Le Blanc's assumptions, that no definite value exists up to which the electrolysis cannot be carried out. There are 2 figures and 12 references, 9 of which are Soviet.

ASSOCIATION: Akademiya nauk USSR, Institut obshchey i neorganicheskoy khimii, Kiyev (Academy of Sciences, UkrSSR; Institute of General and Inorganic Chemistry, Kiyev)

SUBMITTED: July 14, 1957

Card 2/2

DELIMARSKIY, Yuriy Konstantinovich; GORODYSKIY, Aleksandr Vladimirovich;
NATANSON, E.M., doktor khim.nauk, otv.red.; ZAVIRYUKHINA, V.N.,
red.izd-va; MILEKHIN, I.D., tekhn.red.

[Electrode processes and investigational methods in polarography]
Elektrodneye protsessy i metody issledovaniia v poliarografii.
Kiev, Izd-vo Akad.nauk USSR, 1960. 293 p. (MIRA 13:11)
(Polarography) (Electrochemistry)

DELIMARSKIY, Yu. K.; GORODYSKIY, A. V.; KUZIMOVICH, V. V.

Chronopotentiometric determination of diffusion coefficients in
melts. Coll Cs Chem 25 no.12:3056-3060 D '60. (FEAI 10:9)

1. Institut obshchey i neorganicheskoy khimii, Akademiya nauk
Ukrainskoy SSR, Kiev.

(Chronopotentiometry) (Diffusion)

Gorodyskiy, A.V.

PHASE I BOOK EXPLOITATION SOV/4888

Delimarskiy, Yuriy Konstantinovich, and Aleksandr Vladimirovich Gorodyskiy

Elektroodnyye protsessy i metody issledovaniya v polyarografii
(Electrode Processes and Methods of Analysis in Polarography) Kiyev, Izd-vo AN Ukr. SSR, 1960. 293 p. 3,000
copies printed.

Sponsoring Agency: Akademiya nauk Ukrainskoy SSR. Institut
obshchey i neorganicheskoy khimii.

Resp. Ed.: E. M. Natanson, Doctor of Chemical Sciences; Ed.
of Publishing House: V. N. Zaviryukhina; Tech. Ed.:
I. D. Milekhin.

PURPOSE: This book is intended for students, aspirants and
teachers in the chemical divisions of schools of higher
education, and for scientists and skilled workers at plant
laboratories.

COVERAGE: The authors review the present state of polaro-
graphy and discuss techniques for the polarography of

Card 1/15

Electrode Processes (Cont.)

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organic and inorganic substances. Polarographic equipment, new polarographic methods, polarographic techniques with solid electrodes, the polarography of melts, and the kinetics of polarographic electrode processes are also considered. No personalities are mentioned. References follow each chapter.

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Ch. I. Principles of Polarography	
1. The principle of polarographic investigations	10
2. Residual current	13

Card 2/15

SHEYKO, I.N.; GORODYSKIY, A.V.; BYKOVA, M.I.

Polarographic observation of fused potassium fluozirconate. 2hur.
neorg.khim. 6 no.10:2341-2343 0 '61. (MIRA 14:9)
(Potassium fluozirconate) (Polarography)

30871
S/073/61/027/006/003/005
B110/B147

5. 4700

AUTHORS: Sheyko, I. N., Gorodyskiy, A. V., Kuz'movich, V. V.
TITLE: Polarography of molten systems containing zirconium compounds
PERIODICAL: Ukrainskiy khimicheskiy zhurnal, v. 27, no. 6, 1961, 767 - 770

TEXT: Molten Zr compounds were studied polarographically to obtain some data on the electrolytic deposition of Zr from melts. An automatic polarograph with solid stationary electrodes with depolarization of the electrodes between the exposures by short-circuiting was used. A 5 mm long and 0.5 mm thick Pt wire served as cathode while a 2500 mm² Pt disk was taken as anode. The melt was in a porcelain crucible in a quartz test tube in an Ar atmosphere. Molten systems of K₂ZrF₆, ZrCl₄, and ZrO₂ were investigated, molten equimolar mixture of KCl and NaCl being used as a background. Two waves were found in the polarogram of K₂ZrF₆ with 2-5 mole% concentration, which indicate the presence of transformation products of electrolytic dissociation of K₂ZrF₆. $xK^+ + (F^-)_x \cdot ZrF_4 \rightleftharpoons (KF)_x \cdot ZrF_4$

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30871

S/073/61/027/006/003/005

B110/B147

Polarography of molten systems...

$\frac{2}{3}(KF)_x \cdot ZrF_y^{(4-y)+} + (4-y)F^-$, where $(y = 0 + 4)$. Small amounts of a transformed form (TF) of K_2ZrF_6 cause the occurrence of waves in the polarograms of pure K_2ZrF_6 and react on the electrode at lower voltages. Discharge of TF can only be effected by low current densities. An additional increase of voltage causes separation of alkali metal or Zr, or reduction of the original form (OF) of K_2ZrF_6 to Zr metal. It was possible to observe OF waves on a background of alkali metal when polarographing dilute K_2ZrF_6 melts (0.1%). Presumably, the maxima of the two waves of the OF polarograms are caused by variation of the active electrode surface. Since both OF waves have the same height, reduction to Zr metal probably takes place according to "4-2-0" (two successive processes) or according to "4-2, 4-0" (two parallel processes). For the systems $KCl \cdot NaCl - ZrCl_4$, $KCl \cdot NaCl - ZrO_2$, $KCl \cdot NaCl \cdot NaF - ZrO_2$ the electroodic processes were only estimated approximately. As $ZrCl_4$ possesses a considerable vapor tension at melting temperature, its 30% solution was used

Card 2/3

Gorodyskiy, A. V.

33754
S/021/62/000/C02/009/010
D299/D304

26.2520
26.2500

AUTHORS:

Gorodyskiy, O. V. and Panov, E. V.

TITLE:

Measurement of impedance of electrolytic cells by means of effective current

PERIODICAL: Akademiya nauk UkrRSR. Dopovidi. no. 2, 1962, 205-206

TEXT: A simple method is proposed for measuring the impedance of electrolytic cells. Among earlier methods, the most important is the a.c.-impedance bridge method. This method, however, becomes impracticable if the sinusoidal character of the current is disturbed. Hence, instead of compensation by 2 variables - amplitude and phase -, it is more convenient to measure one variable, with 2 parameters of the circuit. Fig. 3 shows a simple measuring circuit. The voltage at the resistor R and cell 2 is measured ($r = 0$). The ratio of these voltages equals the ratio of R to the impedance of the electrolytic cell. Then the value of r is varied ($r \neq 0$), and the total impedance is measured. The relationships obtained yield formulas

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S/021/62/000/002/009/010
D299/D304

Messurement of impedance ...

for the capacitance component x and resistance component p of the impedance of the electrolytic cell. This simple method is a modification of the method of comparison (Ref. 9: V. L. Kheyfets et al., *Praktikum po teoreticheskoy elektrokhemii*, Uzd-vo LGU, 1951); the method of comparison has the disadvantage that the measurements can be carried out only if $p = 0$. The method proposed in the present article was tested on liquid and solid electrodes, in melts of chlorides (cadmium, lead, tin) and potassium nitrate; it gave satisfactory results. Instead of measuring the standard and investigated impedance, the accuracy of the method can be considerably increased by using a compensation bridge. Two types of compensation circuits are described. There are 3 figures and 9 references: 7 Soviet-bloc and 2 non-Soviet-bloc. The reference to the English-language publication reads as follows: D. C. Graham, *J. Amer. Chem. Soc.*, 68, 301, 1946.

ASSOCIATION: Instytut zahal'noyi ta neorhanichnoyi khimiyi AN
UkrRSR (Institute of General and Inorganic Chemistry
of the AS UkrRSR)

Card 2/3

GORODYSKIY, A.V. [Horodys'kyi, O.V.]

Method of direct calculation of the prelogarithmic coefficients
of polarization curves. Dop. AN URSS no.4:495-496 '62.
(MIRA 15:5)

1. Institut obshchey i neorganicheskoy khimii AN USSR.
Predstavleno akademikom AN USSR Yu.K.Delimaarskim [Delimars'kyi,
IU.K.].

(Polarography)

DELIMARSKIY, Yu. K. (Kiev); GORODYSKIY, A. V. (Kiev); PANOV, E.
V. (Kiev)

Chronopotentiometric determination of interelectrode
capacitance in fusions. Rev chimie 7 no. 1: 139-143
'62.

1. Akademiya Nauk Ukrainskoy SSR. Institut obshchey i
neorganicheskoy khimii, Kiev.

GORODYSKIY, A.V.; KUDRA, O.K.

Electrodeposition and galvanic corrosion of zinc. Ukr.khim.zhur. 28
no.7:812-815 '62. (MIRA 15:12)

1. Kiyevskiy politekhnicheskii institut.
(Zinc plating) (Electric corrosion)

DELMARSKIY, Yu.K.; GORODYSKIY, A.V.; SHAPOVAL, V.I.

Analysis of polarograms of the reversible isolation of
metals from melts. Ukr.khim.zhur. 28 no.9:1037-1041
'62. (MIRA 15:12)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.
(Fused salts) (Polarography)

DELIMARSKIY, Yu.K., akademik; GRISHCHENKO, V.F.; GORODYSKIY, A.V.

Capacity of a double layer in the binary $PbCl_2$ - KCl melt. Dokl.
AN SSSR 144 no.2:384-385 My '62. (MIRA 15:5)

1. Institut obshchey i neorganicheskoy khimii AN USSR.
2. AN USSR (for Delimarskiy).
(Fused salts) (Electrochemistry))

GORODYSKIY, A.V.; DELIMARSKIY, Yu.K., akademik; PANOV, E.V.

Impedance of a double electric layer in melts. Dokl. AN SSSR
146 no.1:129-130 S '62. (MIRA 15:9)

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2. AN USSR (for Delimarskiy).
(Fused salts—Electric properties)

GORODYSKIY, A.V.; DELIMARSKIY, Yu.K.; PANOV, E.V.; BALEZIN, E.A.

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Electrolytic zinc plating from fused salts. Sbor. trud. TSNIICHM
no.34:58-60 '63. (MIRA 17:4)

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Catalytic waves in molten electrolytes. Dokl. AN SSSR 150
no.3:578-579 My '63. (MIRA 16:6)

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(Catalysis)

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Position of polarograms obtained at solid electrodes in current -
voltage - time coordinates. Zhur. fiz. khim. 35 no.5:1091-1094
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Shift of polarograms during complex formation. Ukr.khim.zhur. 29 no.5:
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GORODYSKIY, A.V.; PANOV, E.V.

Electric resonance in electrochemical cells. Ukr. khim. zhur.
29 no.8:883-884 '63. (MIRA 16:11)

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GORODYSKIY, A.V.; PANOV, E.V.

Oscillographic study of the interelectrode capacity in fused
salts for cells with a small phase shift. Ukr. Khim. zhur. 30
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DELIMARSKIY, Yu.K. GORODYSKIY, A.V.

Second Conference on the Physical Chemistry and Electrochemistry
of Fused Salts and Slags. Ukr.khim.zhur. 30 no.5:538-540 '64.
(MIRA 18:4)

DELIMARSKIY, Yu.K., akademik; GORODYSKIY, A.V., kand.khim.nauk

Conference on Physical Chemistry and the Electrochemistry of
Molten Salts and Slags held in Kiev. Vest. AN SSSR 34 no.3:
127-129 Mr '64. (MIRA 17:4)

1. AN UkrSSR (for Delimarskiy).

ACCESSION NR: AP4032505

S/0080/64/037/004/0899/0901

AUTHORS: Gorodyskiy, A.V.; Bykova, M.I.

TITLE: Electroplating cadmium from salt melts

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 4, 1964, 899-901

TOPIC TAGS: electroplating, cadmium, technology, plating rate, corrosion resistance, mechanical property, ductility, density, cohesion, molten cadmium chloride electrolyte, electrolysis, throwing power,

ABSTRACT: This article relates to electroplating steel articles with liquid cadmium. After polishing, degreasing, and pickling in 250 g/l HCl solution St-20, 30KhGSA and 30KhGSNA steel pieces were electroplated in molten CdCl_2 electrolyte containing 5-8% AlCl_3 , which was used to improve the wettability of the steel. Ammonium, lead, zinc, and magnesium chlorides were found to be less effective as wetting agents. The throwing power was increased by periodically reversing the current, and optimum conditions were obtained by electrolysis in an electrolyte containing 67% by weight anhydrous CdCl_2 and 33% by weight KCl, an anode of 90-92% Cd and 8-10% Al, and at a temperature

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ACCESSION NR: AP4032505

of 420 to 4500. The recommended current density is 100 amp/dm² for direct current and 10—20 amp/dm² for reversed current with a half-cycle time of 1 sec. The plating rate was 0.5 microns/sec, which is 100 times that of platings from aqueous solutions; deposits of up to 20 microns were obtained. It was found that the deposits have corrosion resistance comparable to deposits obtained from conventional solutions, and have good mechanical properties such as ductility, density, and adhesion to the base metal. Orig. art. has: 1 table and 1 formula.

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(Institute of General and Inorganic Chemistry, AN UkrSSR)

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Card 2/2

DELIMARSKIY, Yu.K., akademik; GORODYSKIY, A.V.; GRISHCHENKO, V.F.

Cathode liberation of carbon from molten carbonates. Dokl.
AN SSSR 156 no. 3:650-651 '64. (MIRA 17:5)

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2. AN UkrSSSR (for Delimarskiy).

GORODYSKIY, A.V., otv. red.; POKROVSKAYA, Z.S., red.

[Physical chemistry and electrochemistry of fused salts]
Fizicheskaya khimiya i elektrokimiya rasplavlennykh
solei. Kiev, Naukova dumka, 1965. 147 p.

(MIRA 18:9)

1. Akademiya nauk URSR, Kiev. Instytut zahal'noi ta
neorganichnoi khimii.

DELIMARSKIY, Yu.K.; GRISHCHENKO, V.F.; GORODYSKIY, A.V.

Reactions taking place during electrolysis of fused carbonates.

Ukr. khim. zhur. 31 no.1:32-37 '65.

(MIRA 18:5)

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Measurement of silver exchange currents in fused salts. Ukr. khim.
zhur. 31 no.8:782-785 '65. (MIRA 18:9)

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